

# Santa Barbara Water

## April 2006



Information on Water and Wastewater for the Citizens of Santa Barbara

## Upgrading for Efficiency

Wastewater treatment is essential for the health and vitality of any city. It is a twenty-four hour a day, every day necessity. Constant use, time and corrosion take their toll on the equipment at the El Estero Wastewater Treatment Plant. Replacing equipment is necessary and upgrading this equipment allows the plant to operate more efficiently. Many of the improvements involve critical treatment processes that must continue operating during construction, making the projects even more challenging. Current projects include:

### Improved Biological Treatment

With reconfiguration and improved machinery less energy will be needed to bubble air into basins containing bacteria used to consume waste from wastewater.



### Settling Tank Improvements

Replacement of key structures in the settling tanks allow bacteria used in the previous phase of treatment to settle and clarify water.

### Emergency Back-up

A new pump is being added to serve as an emergency back-up to the existing three.

### Digester Improvements

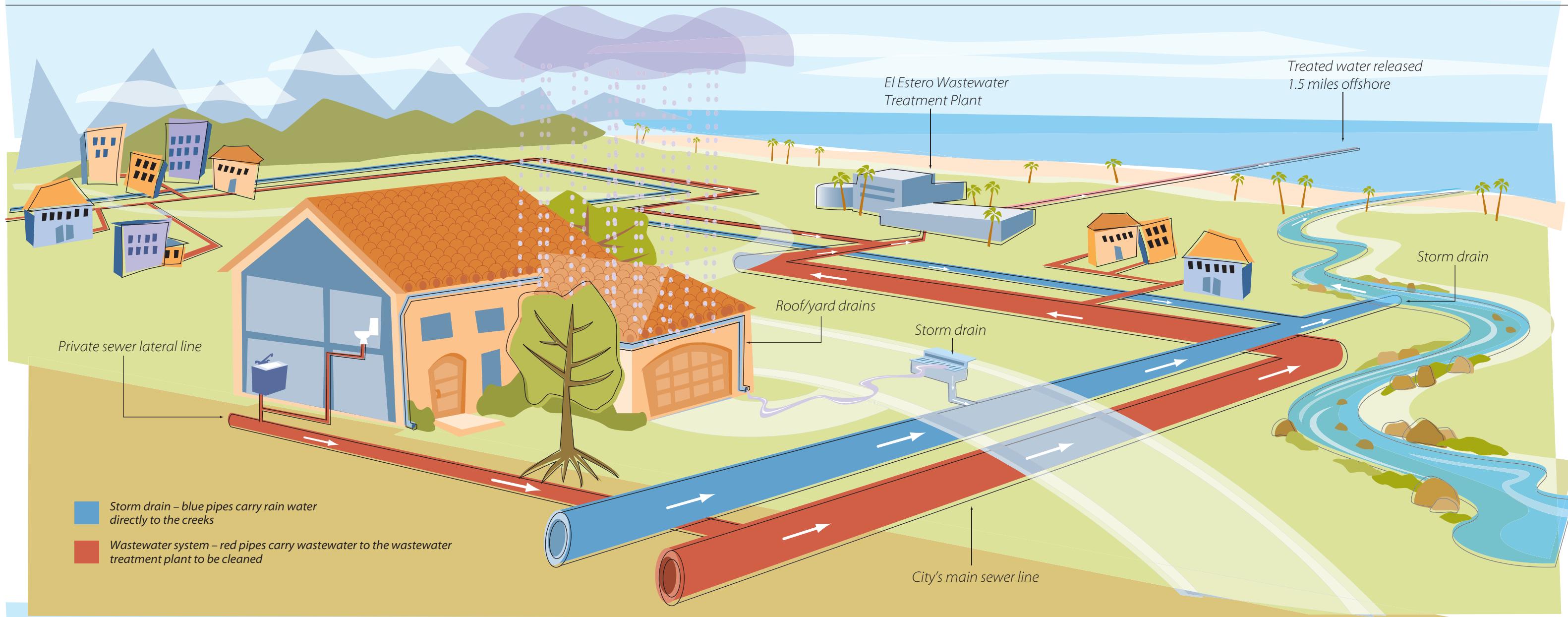
A new pump station is being added to improve the movement of solids to the anaerobic digesters. The digesters are also being completely overhauled to improve mixing and function.



*Above: New equipment is being installed in the settling tanks which will help move clarified water.*

*Left: Steel columns are placed to build the foundation of a new digester pump station at El Estero.*

# Our Wastewater System Is Separate from the Storm Drain System



## How It Works

### Wastewater Collection System

Dirty water from indoor use such as, sinks, toilets and showers, leave homes and businesses through privately owned sewer lateral pipes. These lateral pipe lines connect with City's main sewer pipe lines.

### Wastewater Treatment System

The City's main sewer pipes bring wastewater to the El Estero Wastewater Treatment Plant. Here it is cleaned using physical and biological treatment processes. Cleaned water is released in the ocean 1.5 miles off-

shore and some is cleaned further and used as recycled water for irrigation.

### Ensuring Safety

Each day many specialized tests run before, during and after treatment to ensure the plant is working properly and the treated water meets EPA ocean swimming standards.

### Problems

#### Storm water

Storm water entering the wastewater system through damaged sewer lateral pipes and connected roof/yard drains result in sewage overflows.

### Clogs

Grease, trash and roots cause blockages in sewer pipelines. Clogs in main pipes result in sewage overflows.

### Hazardous waste

Pouring chemicals down the drain can disrupt the biological processes at the wastewater treatment plant or can pass untreated to the environment.

### Costs

#### Your Home or Business

Property damage can result from sewage backups or damaged lateral lines leading to expensive cleanup and plumbing repairs.

### The Environment

Clogged sewers and storm water entering the wastewater system can lead to sewer overflows. As sewage overflows onto streets, it enters the storm drain system where the sewage is then carried to our local beaches, creating a health risk for swimmers, marine life – and causing beach closures.

### The City

Increased sewer blockages and overflows lead to excessive and costly maintenance and can result in severe fines from state and federal regulatory agencies.

# You Can Help!

## Fat free Sewers!

Pour fats, oils and grease into a can and let cool. Put in a plastic bag and place in the garbage.

For more information call **(805)568-0361**.

**No fats, oil or grease down the drain!**  
**¡No ponga grasa o aceite en el drenaje!**



## Drug free wastewater!

Take medications to the Community Hazardous Waste Collection Center, UCSB Mesa Road, Building 565.

For more information call **(805)963-0583, ext.104**.

**No drugs down the drain!**  
**¡No ponga medicamentos en el drenaje!**



No controlled substances (pain medications or steroids)

## Keep household chemicals out!

Take household chemicals to ABOP at Marborg Recycling Center, 725 Cacique Street (entrance on Nopalitos Way) or the Community Hazardous Waste Collection Center (see above).

**No hazardous waste down the drain!**  
**¡No ponga deshechos peligrosos en el drenaje!**



## Keep storm water in storm drains!

The storm drain and sewer system are separate. Roof/yard drains should flow into storm drains not into sewer lines. Storm water can flood the sewer pipes and cause sewage overflows. Sewage in the streets can flow into our creeks and ocean.

For more information call **(805)568-1025**.

**No roof/yard drains connected to the sewer.**  
**¡No conecta el canalón de su techo o jardín a la alcantarilla!**



## Inspect and repair sewer lateral pipelines!

Damaged sewer lateral pipelines allow storm water and roots into the sewer system, both can cause sewage overflows.

For more information call **(805)564-1010**.

**No damaged sewer lateral lines.**  
**¡Asegurase que las líneas laterales (cañerías) de la alcantarilla no estan dañadas!**



**For more information please contact **(805)564 -1010**.**

# Working Towards a Cleaner Environment



*Fuel Cells at El Estero enter their second year of successful operation. Plant upgrades and improvements will increase energy production in the upcoming year.*

## Fuel Cell Update: Making Electricity From Hydrogen Gas

The installation of two 250 KW fuel cells using hydrogen from gas generated by the wastewater treatment process provides an application of leading edge technology at El Estero Wastewater Treatment Plant.

Benefits of this clean technology have been:

- the production of half the total electrical demands of the treatment plant,
- the reduction of air emissions by up to 35,000 pounds of nitrogen oxide and 500 tons of carbon dioxide annually
- the production of excess electric power sent to the grid for other users.

This clean, renewable energy represents an excellent means to augment conventional energy sources.

## Ocean Water Quality

### **How does pollution get into our creeks and ocean?**

As water from rain or outdoor use flows over and through the landscape it picks up and carries contaminants from many different sources. This polluted water ends up in our creeks and ocean by flowing into our creeks directly or through storm drains. Please call the City's Clean Creeks Program at (805)897-2658 to learn more.

### **Is there a difference between the storm drain system and the wastewater system?**

YES! The storm drain system and the wastewater system are two different sets of pipes. The storm drain system is designed to carry storm water from the streets into the creeks to prevent flooding during rainstorms. The wastewater system is designed to carry wastewater from our toilets, sinks and showers to El Estero Wastewater Treatment Plant for a highly regulated cleaning process.



*At El Estero tests are conducted during many stages of the treatment process to ensure EPA standards are met or exceeded.*

### **Who regulates the quality of treated wastewater?**

The Environmental Protection Agency (EPA) has established strict standards to regulate the quality of treated wastewater. These standards are used to help maintain ocean water quality for humans and wildlife.

### **What causes sewage overflows?**

The leading cause for sewage overflows is related to damaged sewer lateral lines from private properties. Sewage overflows can reach the ocean through storm drains creating health risks for swimmers and wildlife.

### **Inspections of your sewer laterals can help.**

Damaged sewer laterals can cause overflows by allowing storm water and roots into the sewer lines. Overflows can be prevented by inspecting and/or repairing your sewer lateral. Currently the City is developing a mandatory sewer lateral inspection ordinance to help ensure that sewer laterals from private property are repaired.

*For more information about the wastewater system call: (805)564-1010*



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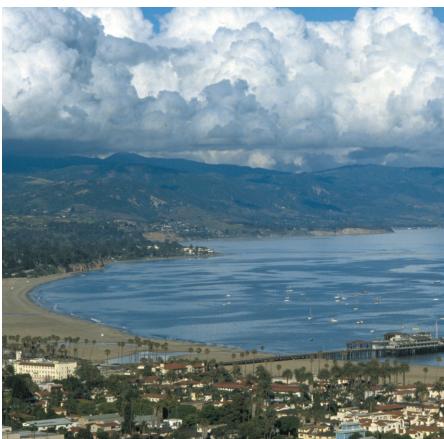
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## **Information on Water and Wastewater for the Citizens of Santa Barbara**

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### **Where does your toilet water go?**

Curious? Arrange a peculiarly interesting tour of El Estero Wastewater Treatment Plant. School groups are welcome. Please call (805) 568-1010 for more information.



The City's El Estero Wastewater Treatment Plant meets stringent standards for treating wastewater.

### **For More Information**

Wastewater Treatment .....	<b>Victor Acosta</b> <b>805-568-1010</b>
Wastewater Collection Systems .....	<b>Manuel Romero</b> <b>805-568-1020</b>
Wastewater Treatment Plant Tour .....	<b>805-568-1010</b>
Clean Creeks Program .....	<b>805-897-2658</b>
Creek Pollution and Storm Drains.....	<b>805-897-2688</b>
Community Hazardous Waste Collection Center....	<b>805-963-0583</b>